

Three Act Task System

The three act task system is designed to allow students to more fully learn about a subject by breaking down the learning process into the three acts. The three acts then work and build off of each other, the elements of each act working to help student understanding. The system leverages the knowledge and thinking students bring to the classroom by giving students more agency in the learning process and by increasing the relevance in daily life. [1][3]

The Main Benefits of the Three Act Task System

The acts work together to help the student understand the material. Specifically, it allows students to connect with the material in multiple ways, in a manner intuitive to the students. The intuitive manner allows for students to better realize the implications of the mathematical question they selected. By allowing students to decide their own question and work towards a specific solution, students not only connect to the material more but also understand the concepts on a personal level. [1][3]

ACT 1: LEARNING TO ASK MATHEMATICAL QUESTIONS ABOUT THE REAL WORLD

The instructor describes a real-life situation through videos and photographs. Typically, the instructor chooses a situation that will encourage students to explore a specific mathematical concept. The students choose a mathematical question to answer about the situation depicted. [4] By exposing students to a situation rather than the instructor just telling them about it, the students have more ways to connect to the material being taught.

ACT 2: LEARNING TO IDENTIFY INFORMATION NEEDED TO ANSWER A MATHEMATICAL QUESTION

Next, the students are provided resources that will aid them in their discovery of the answer. Resources might include readings, visuals, or physical models. Students should work to answer the question identified in the first act.[4] Having the students think about a question they identified ensures that students are invested in the lesson, allowing them to connect to the material in a more intuitive and complete way.

ACT 3: LEARNING TO EXAMINE, CONNECT, AND REVISE MATHEMATICAL MODEL

Finally, students discuss their strategies and solutions. The instructor may further refine or investigate student strategies before providing other real world models. All examples are rooted in relevance to students' experiences or future needs. [4] The final review phase, in particular, allows for the students to ask about issues they have with the subject.[2]

References:

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- [2] Healey, M. (2005). Linking Research and Teaching to Benefit Student Learning. *Journal of Geography in Higher Education*, 29(2), 183–201. <https://doi.org/10.1080/03098260500130387>
- [3] Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266. <https://doi.org/10.1023/b:edpr.0000034022.16470.f3>
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